Blockchain Technology and Accounting Practice in Nigeria

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Abstract

The implementation of Blockchain technology in Nigerian Accounting Practices has significantly impacted accounting in recent years. The specific goal of this study was to evaluate how Blockchain technology might affect Nigerian accounting methods' efficacy. The study aims to evaluate the impact of integrating Blockchain technology on accounting practices in Nigeria. The core data for this study, which took a qualitative approach, came from a structured questionnaire sent to the intended respondents, including finance analysts, accountants, and Blockchain specialists employed as professional accountants in accounting firms. The sample size was determined by giving professional accountants 100 copies of the questionnaire, of which 86 were returned. Both descriptive and inferential statistics were used to analyze the data. According to the overall findings, Blockchain technology significantly improved Nigerian Accounting Practices. As a result, this study suggests that accounting businesses in Nigeria should consider utilizing Blockchain technology to increase efficiency, transparency, and data security.

Keywords: Blockchain technology, Accounting Practice, Data Transmission, Immutability

1.1 Introduction

Globalization and digitization have brought up new challenges, limitations, and innovations in finance, accounting, fund transfers, payment systems, data transmission, and storage. The term "Blockchain" is well known and presently in vogue, and academia and business agree that it will disrupt several facets of our lives. Over the last ten years, Blockchain technology and cryptocurrencies have emerged as noteworthy developments. The costs of transferring money between two parties are rising due to electronic payment systems' inclusion of a trustworthy middleman. (Nakamoto, 2018). As a result, a payment system

A computerized system that lets people send money directly between two parties without the use of a middleman is now required. In response to this need, this system uses cryptology to enable direct transactions between individuals on a "peer-to-peer" basis (Nakamoto, 2018).

However, in contemporary culture, Blockchain technology lays the groundwork for a new financial settlement that could upend the global fiat monetary system (Carzolo, 2017). Bitcoin is a recently developed digital currency based on Blockchain technology that has seen significant adoption and speculation.

Instead of using a centralized method, Blockchain technology distributes a ledger across a decentralized system of linked computer networks. A Blockchain is a computer data structure containing every transaction made since the network's founding. Every machine linked to the network replicates and distributes this structure. When a new transaction is submitted, it is added to the front of the Blockchain at regular intervals, becoming the most recent "block" of transactions and combined with earlier transactions to form a "block." The network of computers involved in the process updates its Blockchain to correctly reflect the approved Blockchain once most machines acknowledge the "block" (Pilkington, 2015).

1.2 Statement of the Problem

There is currently little to no use of Blockchain technology in the accounting industry, and there is no systematic structure in place. In the domains of accounting, auditing, and reporting, a complete examination of the implications of Blockchain technology and its use in accounting operations in Nigeria is still in its early stages of investigation. Everyone agrees that the best way to remedy this shortcoming is to give a thorough overview of the advantages and disadvantages of utilizing Blockchain technology in accounting research and practice.

According to Mavilia and Pisani (2019), Blockchain technology presents a promising avenue for investment in modern technology by providing a major safeguard and introducing a fresh type of funding. Several studies have been conducted globally to investigate the application of Blockchain technology and accounting practices; however, Nigeria has been the subject of relatively few of this research. However, the application of advanced technology in Nigerian accounting has been limited, mainly to the financial services and oil and gas industries. Furthermore, this study may be extremely helpful in determining the precise application of Blockchain technology in Nigeria's accounting industry. In addition to adding to the current conversation on the possible advantages and challenges of implementing Blockchain in accounting practice, the researcher aims to evaluate the impact of Blockchain technology on Nigerian accounting procedures. Its goal is to fill in the knowledge gap.

1.3   Objective of the Study

This research assesses the consequences of implementing Blockchain technology on accounting procedures in Nigeria. The specific aim of the study is to:

i. Examine the impact of bookkeeping and Blockchain technology implementation on accounting procedures in Nigeria.

ii. Evaluate the influence of accounting records and Blockchain implementation on accounting procedures in Nigeria.

iii. Assess the extent of Blockchain implementation in accounting Reconciliation processes in Nigeria.

1.4 Research Questions

The question pertains to the influence of Blockchain technology implementation on the accounting profession in Nigeria.

i. What is the impact of bookkeeping and Blockchain technology implementation on accounting procedures in Nigeria?

ii. What is the influence of accounting records and Blockchain implementation on accounting procedures in Nigeria?

iii. What is the extent of Blockchain implementation in accounting Reconciliation processes in Nigeria?

1.5 Significance of the Study

By compiling and examining scholarly articles, expert reports, and websites that address the use of Blockchain technology in the accounting field, this study seeks to understand how accountants are affected by the technology. By carefully reviewing and evaluating the most recent scholarly literature and professional sources, the study provides an overview of emerging issues relevant to future research and practice. This study makes three noteworthy contributions.

To give practitioners, scholars, politicians, and regulators an overview of this breakthrough, this study is among the first to systematize Blockchain technology in the accounting environment. Moreover, it provides an extensive examination of the possible modifications and impacts that Blockchain technology could have on accounting procedures. This review offers advice to current and prospective accountants on successfully navigating the quickly developing sector of Blockchain technology. Third, this study also offers a road map that includes suggestions for future research directions and problems by integrating professional reports, websites, and published academic literature. The objective of this research is to present a thorough analysis of the general adoption of Blockchain technology, with an emphasis on its use in accounting.

REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Concept of Blockchain Technology

Blockchain was first created in 2009, concurrently with the release of Bitcoin, a virtual currency created by an unidentified person or group known only as Satoshi Nakamoto. In decentralized cryptocurrency mining, users utilize computer programs to solve complex mathematical challenges to produce Bitcoin. Blockchain serves as the core technology that powers Bitcoin. It is crucial to recognize that Bitcoin and Blockchain are two different things. Blockchain can be considered an operating system, like Windows or Macintosh, where Bitcoin is only one of many apps that can be used. Even with technological advancements, such as credit card processing, internet access, and phone lines, many business transactions still suffer from high prices, inefficiency, and risk. By offering a system that prevents fraudulent activity, boosts trust and transparency, and reduces the need for middlemen, blockchain can enhance corporate transactions and result in cost-effectiveness, efficiency, safety, and security.

IBM's (2018) elevator pitch describes blockchain as a decentralized, immutable ledger that facilitates the recording of transactions and asset tracking within a corporate network. Assets are categorized into two groups: tangible assets, which are physical possessions like houses, cars, cash, and land, and intangible assets, which include intellectual property, patents, copyrights, and branding. Any asset can be tracked and traded on a Blockchain network, lowering risk and expenses.

It is important to recognize that Blockchain technology—or distributed ledger technology—is not a financial instrument, even though its possible uses in accounting and finance are being researched. According to Smith (2018), Blockchain cannot be used as a journal entry tool, an accounting platform, or a substitute for accounting software. Blockchain adds an extra entry to a transaction that validates both sides of a transaction inside a single block, improving upon the conventional double-entry accounting technique. In a conventional trading situation, each party independently maintains an independent ledger—a transaction record. This increases the chance of errors because the records might not match regularly, necessitating the involvement of an outside party to conduct an audit to validate the data. Blockchain ensures that before the transaction is entered into the distributed ledger, both parties verify it. By giving everyone access to current, correct information in real-time, this approach reduces errors, saves time, and eliminates the need for account reconciliation at the end of the fiscal year (2017's Business Learning Institute).

Every block on the Blockchain is connected to the one before it, forming a chain that goes sequentially. The history of an item or transaction may be accurately and dependably tracked as the blocks are immutable. Instead of deleting a block in the event of a data error, a new block with the updated data is produced. The old, centralized method of storing information is contrasted with the decentralized and dispersed nature of the Blockchain network. Every member of the network is automatically integrated into the database that houses the Blockchain, ensuring that the shared data is extremely resistant to attempts by hackers to access it. All the data in a traditional centralized system is compromised in the event of an attack. However, this is not enough to corrupt a Blockchain database; a person must control more than half the network.

The unique hash identifier of every block can be cross-referenced with the corresponding block's identifier on the other computers in the network to verify the authenticity of the current data. A new block containing the transaction data can be added to the network once a consensus of

at least 51% is reached, signifying that most computers in the network have verified the same hash ID and that both parties involved in the transaction have confirmed the legitimacy of the new transactions. As soon as the transaction is finished, it is instantly available in real time to every network member.

The consensus approach guarantees the immutability of the blocks and the data they contain, which prevents updates (Smith, 2018; Crosby, 2016). By implementing a consensus method and guaranteeing that every participant verifies the transaction, fraudulent entries, and manipulative strategies—also known as "cooking of the books"—are effectively prevented. As a result, Blockchain technology offers a very safe way to carry out transactions.

2.1.2 Concept of Technology

A primary objective of any payment or financial system is to reduce the incidence of double-spending. In 2018, Satoshi Nakamoto developed Blockchain technology to circumvent intermediaries such as financial institutions, thereby facilitating direct transactions between peers (Short, 2018). Satoshi Nakamoto proposed a decentralized ledger system that operates on a peer-to-peer network. The person who pays and the person who receives payment can transact over the network. They utilize encryption and agreement procedures to establish unchangeable exchanges. In essence, a system is in place to identify or track the money's owner and prevent duplicate transactions; the owner should only be permitted to use the money once. Using an agreement mechanism, Blockchain technology eliminates the problem of dual spending (Nakamoto, 2008).

Blockchain technology is made up of both technical and non-technical elements. These advanced features allow for the transfer of valuable goods, either with or without the assistance of a centralized or authorized entity (Guo and Liang, 2016). As a result, one could argue that people are becoming more and more fascinated with this technology. Blockchain technology provides data integrity, anonymity, decentralization, and security, disregarding the need for middlemen or centralized authorities (Yli-Huumo et al., 2016). They claimed that the decentralized aspect of Blockchain can improve data transparency in comparison to centralized methods. Notably, the ability of Network users of the public Blockchain to stay anonymous might dramatically reduce the privacy standards of organizations that require a great deal of data from their customers, such as Know Your Customer (KYC) certification.

According to Jesse and Shumaker (2016), Blockchain is a public, decentralized digital record that confirms the accuracy of the connected entries in Bitcoin transactions. It was noted that the early usage of Blockchain technology corresponded with the rise of Bitcoin. Bitcoin is still the most well-known and extensively discussed use of Blockchain technology. In 2008, Satoshi Nakamoto envisioned Bitcoin as a decentralized digital currency payment system with a publicly accessible transaction ledger called the Blockchain. According to Jesse and Shumaker (2016), one of Bitcoin's primary characteristics is its ability to maintain the value of its currency independently of a central authority.

Financial institutions hope that the use of Blockchain technology will lower costs for operational duties, including trading, settlements, and international payments (Irrera and Shumaker, 2017).

This degree of assurance opens the door for a potential financial revolution that might greatly impact future accounting operations. The costs now related to centralization may be decreased by blockchain's decentralized structure (Zao et al., 2016). This assertion has been supported by Guo and Liang (2016), who agree that the banking sector may reduce operational risks, delays, and fraud by implementing Blockchain technology. However, it is imperative to highlight that Blockchain networks are still slow (Zao et al., 2016). Because peer-to-peer nodes must function as both servers and clients, reaching consensus throughout an entire network can be a time-consuming and resource-intensive operation (Jesse and Shumaker, 2016). Blockchain is very safe and unchangeable. This indicates that if you do not have complete control over the machines on the network, there is a 99.9% chance that you will not be the target of hacking or manipulation. Still, the idea is essential when considering how Blockchain will affect any company.

2.1.3 Blockchain and Accounting Practices

Record-keeping, contracts, and reconciliation are three areas where accounting is currently facing significant challenges and is expected to undergo significant changes in the near future. These tasks did not see significant technological disruptions prior to the switch from human to automated operations. Professionals in accounting, auditing, and control have expressed a great deal of interest in Blockchain due to its potential to revolutionize these areas (Jesse and Shumaker, 2016).

Although Blockchain solutions are acknowledged as a very innovative technology, there is a lack of empirical data to support their utility, and the concept behind them is still in its early stages of development. At present, Blockchain technology is undergoing development, with most researchers concentrating on its technical facets. There are very few Blockchain apps designed for usage at the enterprise level. Most Blockchain applications are created as unique, specialized solutions. There is a degree of contempt for the organizational issues this new technology presents. However, decentralization is necessary for Blockchain to reach its full potential, and this means significant shifts in how business executives perceive and implement their companies' operations. In 2016, the writers Guo and Liang released a paper.

Prominent accounting companies are driving the development of Blockchain-enabled software applications and actively encouraging the broader usage of this technology. There are disagreements over the proper way to report cryptocurrency transactions financially and whether to revise International Financial Reporting Standards (IFRSs) to make them compatible with Blockchain technology. Scholars and accounting experts are actively looking into possible applications of Blockchain technology in the accounting field.

Blockchain is an accounting method that includes keeping an accurate financial record and transferring ownership of assets. The accounting profession's main focuses are quantifying, recording, and assessing financial data. Establishing and quantifying property rights and obligations, together with creating the best possible plans for allocating funds, are important components of this line of work (ICAEW, 2018). The application of blockchain technology

benefits accountants since it significantly increases operational efficiency by offering greater transparency regarding asset ownership and liability.

Blockchain technology can revolutionize the accounting sector by reducing costs associated with accounting and reconciliation procedures and ensuring absolute transparency regarding asset ownership and historical records (Potekhina and Riumkin, 2017).

Blockchain technology can help accountants define their company's responsibilities and available resources clearly and concisely, freeing up resources for strategic planning and pricing instead of being consumed by record-keeping-related administrative tasks. Blockchain is anticipated to become more important in transaction-level accounting due to the growing influence of automation trends like machine learning, which utilize a different approach than accountants (Su, 2021). In this sense, competent accountants can analyze the actual economic implications of blockchain data and create connections between this data and assessments and the reality of the economy.

Blockchain technology can confirm a debtor's existence, but it cannot yet determine its actual value or economic significance. Similarly, while blockchain verifies asset ownership, assurance of an asset's state, location, and actual value is still required. Because blockchain eliminates the need for reconciliation procedures and offers confidence regarding transaction histories, it can potentially expand the accounting industry. This growth could encompass formerly difficult or untrustworthy domains, like determining the value of an organization's data (Vardia and Singh, 2022).

Blockchain technology has the potential to replace traditional accounting and reconciliation procedures. This could change the roles of accountants and give people who create value in other areas more influence. In M&A due diligence, distributed ledger technology can help establish a consensus more quickly, giving more time to assess various factors and provide recommendations, accelerating the process overall (Feng, 2021). Blockchain technology can also be used in external control scenarios, minimizing the need to confirm a company's financial status. This is because the blockchain transparently records all transactions contributing to that status. By combining blockchain technology with effective data analysis, audit-related transaction-specific problems may be resolved, freeing auditors to concentrate their expertise on more important topics. Audits entail evaluating how transactions are documented and stored and confirming transaction amounts and specifics. This involves figuring out how to distribute the money from a transaction to debt repayment, expenses, selling charges, or starting a business (Adelowotan and Coetsee, 2021).

The financial system's adoption of blockchain technology presents many opportunities for accountants. Given their reputation for record-keeping, the application of intricate rules and business logic, and standardization, accountants are well-positioned to play a pivotal role in determining how blockchain technology is integrated into the financial industry. Vardia and Singh (2022) assert that individuals can play a critical and influential role in advancing blockchain-based solutions and services. The gradual advancement, standardization, and optimization of blockchain technology are expected to be necessary before it can be fully integrated into the dynamic financial

ecosystem. This process is anticipated to take several years, much like the ongoing evolution of blockchain technology.

Accounting professionals can offer consulting services to businesses considering implementing blockchain technology, helping to evaluate the benefits and drawbacks of doing so financially. According to Atik and Kelten (2021), firms investigating new technologies and looking for prospects find them indispensable consultants due to their blend of financial and commercial expertise. The use of smart contracts and blockchain technology is presently bringing about a major transformation in the accounting components related to transaction security and property transfer execution. The decrease in the requirement for arbitration and dispute management, along with more certainty regarding rights and duties, enables a broader emphasis on settling and supervising transactions, broadening the range of functions (Kitsantas and Chytis, 2022).

Accounting departments can use modern technologies like data analytics, machine learning, and blockchain technology to optimize procedures. The accounting profession may become more efficient and valuable due to this shift, which will alter the skill set required. Certain industries, including provenance insurance and the postal service, may see a fall in employment or even go extinct, but consulting and value-added businesses are predicted to increase. Auditors may need to adjust their focus and methods to conduct effective audits of companies involved in large-scale blockchain-based transactions (Atik and Kelten, 2021).

2.1.4 Accounting Practices in Nigeria

The management, recording, processing, and reporting of financial records were all done manually in accounting procedures before the advent of digital innovation (Oladejo, 2014). When an accounting system was used manually, data had to be pure and processed, stored and managed. A manual accounting method involves creating invoices by hand and interacting with consumers in person. Because consumers will not wait for service when they can receive it quickly from a digitalized company, the manual technique reduces process efficiency and makes it less competitive. The manual method makes data collection, analysis, and storage even more difficult and time-consuming.

Given the lengthy history of the accounting field, digitization transformations have been extremely rare. Manual systems were used before computers were invented in the 1980s (Oladejo and Yinus, 2020). Software for minicomputers and tiny accounting machines was available to improve the effectiveness of accounting procedures. Some corporate accounting departments still use manual procedures and outdated technology. However, the use of computerized systems and proprietary software for managing and documenting financial data has advanced significantly in the financial services industry, the oil and gas industry, the manufacturing industry, and other institutions. While the public sector has only partially implemented IPSAS, the nation has adopted IFRS.

Financial Services Innovators have launched a groundbreaking Fintech sector sandbox, with cooperation from the Central Bank of Nigeria (CBN) and the Nigerian Inter-Bank Settlement System (NIBSS). This sandbox's main goal is to remove barriers to entry into the Fintech industry, especially those related to licensing and regulatory compliance. According to NBC News (2005),

this project is a program and collection of actions that Nigerian regulators have put in place to advance financial inclusion, improve security, guarantee transparency, and protect customers' interests. To increase financial inclusion, the cashless policy was implemented. This has led to a rise in Fintech companies providing banking services to Nigeria's rural areas. Banks are currently using fintech to maximize customer loyalty and preserve their competitiveness in the financial services industry. Consequently, the market for payment services experienced swift transformations. By 2025, it is projected that 70% of clients in Nigeria will utilize mobile applications to obtain financial services.

2.1.5 Impact of Blockchain Technology on Accounting Practice in Nigeria

To fully understand this subject, it is essential to examine how blockchain technology affects Nigerian accounting practices. Adopting blockchain technology has brought about several benefits for Nigerian accounting practices. The consequences of blockchain technology can be summed up as follows: Oladejo and Yinus (2020) stated that the user did not supply any text.

i   Protection. The advent of Blockchain technology has successfully addressed significant issues and decreased the need for central information intermediaries, including system administrators. Additionally, it lets users use error-free, tamper-proof, and obfuscation-free programs without having to worry about dangerous third parties or fraudulent activity. As a result, controlling or breaking into blockchain technology is quite challenging.

ii   Scalability is crucial to consider. You can change the number of blocks a blockchain has by changing the number of transactions it has. One benefit of blockchain innovation is its scalability. It offers a global agreement with enhanced core network security as well as enhanced communication between private users and secret networks.

iii   Responsibility: With blockchain, trust can be established without needing a third party to function as an intermediary because of its decentralized design and transaction recording mechanism, which provide maximum transparency for both sender and recipient. Moreover, it complies with the accepted standards, procedures, and guidelines. Moreover, each party to a transaction is aware of the data that is kept in the block that contains it.

iv Secrecy: Blockchain technology eliminates the necessity for intermediaries such as banks and credit card companies in a transaction, enhancing the financial system's efficiency, trustworthiness, and transparency.

v Trust: Users are more open to accepting blockchain's significant role in adoption because of the improved privacy and transparency it provides. Additionally, it facilitates efficient collaboration, precise information management, and successful consensus-building among individuals within business networks.

vi **Highly effective**: Blockchain enhances performance by effectively handling unexpected surges in network demand. The private and mixed network may process hundreds of additional transactions per second, providing an additional advantage.

2.1.6   Challenges in the Adoption of Blockchain Technology in Nigeria

Blockchain technology has many benefits, but it also has drawbacks that prevent it from being fully utilized. There are several things to consider when choosing and applying blockchain technology. While some of these elements are essential everywhere, some are especially important in emerging nations like Nigeria (Oladejo and Yinus, 2020). According to Kshetri and Voas (2018), blockchain technology in Nigeria is running into the following issues:

i. **Technical knowledge**: Despite the advancing quality of Blockchain, Nigerians are not familiar with the many technical paradigms, and there is a lack of proper documentation to aid users in accessing precise information. Nigerians also lack the ability to immediately inquire or receive clarifications for their uncertainties. This is potentially one of the factors contributing to the Nigerian government's unfavorable position on it.

ii. **Infrastructure:** Issues may hinder the effectiveness and efficiency of Blockchain procedures. For instance, only a minority of Nigerians possess access to the internet, and even among those who do, the availability of high-quality and uninterrupted service is infrequent. Enhancing the country's internet penetration is imperative for blockchain applications to be effectively adopted and exploited by the Nigerian economy.

iii. **Task Complexity**: An increase in the number of transactions conducted in Blockchain requires a corresponding expansion of the Blockchain network's bandwidth.

iv. **Security in the system**: Although the Blockchain is considered more secure than traditional centralized systems, further investigation is necessary to ensure its future security.

v. **Lack of awareness**: A significant obstacle to blockchain technology in Nigeria is the dearth of awareness and widespread ignorance regarding its functionality. There is a widespread lack of comprehension among companies and individuals regarding the nature and capabilities of blockchain technology, which is impeding its investment and implementation. Furthermore, blockchain is frequently linked to cryptocurrency in the perception of many individuals, and the unfavorable media coverage surrounding the use of cryptocurrencies has also affected the reputation of blockchain technology. It is crucial to disseminate knowledge about the adaptability of blockchain technology and its potential applications in addressing diverse challenges in Nigeria.

vi. **Regulations and regulators**: The absence of clear legislation poses a substantial barrier to Nigeria's extensive adoption of blockchain technology. The Digital Assets Rules introduced by the SEC in 2022 are now non-operational due to implementation issues and disputes with the CBN's position on virtual currencies. The lack of explicit directives and licenses has engendered ambiguity, impeding the pace of innovation and investment in firms that rely on blockchain technology. To tackle this problem, the Nigerian government must develop unambiguous and all-encompassing regulatory frameworks for the blockchain business. The government should collaborate with pertinent blockchain

business stakeholders, including startups, investors, and industry groups, to guarantee the practicality and efficacy of regulatory frameworks.

vii. **Electricity**: The unstable condition of the Nigerian power sector poses a major obstacle to the widespread implementation of blockchain technology in Nigeria. The energy Think Tank Group's recent analysis reveals that around 75% of energy consumed in Nigeria is generated by diesel and petrol-powered generators, amounting to almost 25,000MW. In contrast, the national grid supplies just about 4,000MW.

viii. **Security**: Security is another crucial concern associated with blockchain technology. While Blockchain-based applications, networks, and organizations are generally more secure than traditional computer systems, they are nevertheless susceptible to flaws. Moreover, owing to its predominantly untraceable characteristics, illicit factions have embraced cryptocurrencies to facilitate their unlawful endeavors, such as money laundering, drug trafficking, human trafficking, and the funding of terrorism. Blockchain technology firms must adopt strong security measures, including two-factor authentication, encryption, and periodic security audits to tackle these security concerns. Furthermore, the cooperation of blockchain specialists, law enforcement agencies, and regulatory entities can also have a substantial impact on countering illicit activity associated with blockchain technology.

2.2 Theoretical Review

This study conducted a comprehensive analysis and provided a solid foundation for the Technology Acceptance Model (TAM).

2.2.1   Technology Acceptance Model

The Technology Acceptance Model (TAM) is a theoretical framework for understanding and predicting the acceptance and adoption of new technologies.

Fred Davis created the Technology Acceptance Model (TAM) in 1986, offering helpful insights into the efficacy and efficiency of blockchain technology in the accounting industry. A well-known paradigm called the Technology Acceptance Model (TAM) was first created to predict and explain users' acceptance or rejection of information and communication technology (ICT). TAM, which is based on the Theory of Reasoned Action (TRA), concentrates on perceived utility and perceived ease of use as the two main factors that affect technology acceptance. These features are currently essential to comprehending how accounting specialists view and apply blockchain technology.

In blockchain technology, perceived utility refers to a person's belief about how much blockchain can improve accounting procedures. Blockchain's immutable and transparent ledger features have the power to completely transform traditional accounting by increasing efficiency and transparency. The degree to which people think they can easily integrate blockchain technology into their accounting procedures is known as perceived ease of use. The adoption of blockchain technology has led to notable changes in financial systems and accounting practices. The discipline of management is the main emphasis of the International Journal of Business and Management. When it comes to financial reporting, the widespread adoption and effective use of blockchain technology are essential to preserving the accuracy of financial data.

Institutional actions and individual engagement within accounting organizations are equally crucial in promoting the use and integration of blockchain technology. Other theoretical models, like TAM, have been used to understand better how accountants view and use blockchain technology. According to the Technology Acceptance Model (TAM), founded on the Theory of Reasoned Action, a person's propensity to use technology is primarily dictated by how useful and easy it is for them. This means that, in terms of blockchain adoption, accountants are more likely to embrace blockchain technology if they believe it will benefit their accounting responsibilities and that it will be simple to use.

Moreover, the Technology Acceptance Model (TAM) suggests that outside variables, including the unique characteristics of the blockchain system, may influence users' intentions by influencing how simple and advantageous they believe it to be. A blockchain system is more likely to be adopted if it is well-thought-out, easy to use, and offers observable benefits for accounting procedures. Blockchain technology is only one example of the many situations, people, and technologies where the Technology Acceptance Model (TAM) has demonstrated its broad applicability and robustness through a consistent accumulation of empirical evidence. Blockchain is becoming increasingly well-known in the accounting industry because of its capacity to enhance financial transaction security, transparency, and efficiency. According to Venkatesh and Davis (2016), the Technology Acceptance Model (TAM) is a helpful framework for understanding and projecting the adoption and use of blockchain technology by financial professionals, such as accountants.

2.3 Empirical Review

Akinadewo (2023) investigated how disruptive technologies affected the effectiveness of Nigerian accounting practices. This study used a survey research approach, and professional organizations in the southwestern states of Nigeria were given a standardized questionnaire. Correlation analysis and Ordinary Least Squares were used to analyze the data. The results showed a strong positive correlation between the efficacy of Nigeria's accounting procedures and the independent variables as determined by the proxies.

Igbekoyi et al. (2023) assessed the impact of big data on the effectiveness of accounting methods in Nigeria. The primary data collection technique employed in this study was a structured questionnaire used in a survey research design. The population consisted of the 35 registered accounting businesses in Lagos State. The sample size was obtained using a census sampling technique, including the entire population, representing 100% of the population. Due to the limited population, six participants were chosen from each accounting business, resulting in 210 responses. Out of the total sample, 197 replies were received, indicating a remarkable response rate of 94%. Data study involves using descriptive statistics and ordinary least squares (OLS) regression analysis techniques. The findings demonstrated the substantial impact of the indicators representing the independent variable, such as data veracity, on the effectiveness of accounting processes in Nigeria.

Akinadewo et al. (2023) investigate, from a different angle, how the accounting information system (AIS) affects the performance of Nigerian firms. A survey study approach was

used to gather data, and a structured questionnaire was used. Descriptive and inferential statistics were used to analyze the data following data collection. A purposive sample technique was used to choose fifty currently practicing chartered accountants. Only 46 responders, nevertheless, finished and sent back the survey. The findings showed that AIS and a company's performance had a substantial and beneficial association.

Osalomi et al. (2023) examined the connection between Nigerian accounting practices' efficacy and the use of information and communication technology (ICT). 130 participants in accounting-related situations, including managers, auditors, and directors, received a standardized questionnaire from the study. The findings indicate that the country's accounting practices operate more effectively when information and communication technology is employed.

Kishor (2022) researched how blockchain technology might affect auditing and accounting. Secondary material for this study was gathered from numerous sources and journals—the study aimed to contribute substantially to the knowledge already available on triple-entry accounting and blockchain technology. According to the data, blockchain technology is not expected to replace experts in accounting and auditing. On the other hand, it allows auditors and accountants to transition into advisory roles as consultants.

The goal of Kitsantas and Chytis (2022) was to describe and investigate the use of a novel framework known as the Blockchain as an Ecosystem (BaaE) platform. The authors published Triple Entry Accounting (TEA), a theoretical framework designed to transform how accounting is done today. They also investigated how supply chain management, inventory control, and cost management could be integrated into the Blockchain Technology (BT) architecture. The study identified significant challenges and benefits of this integration and provided a roadmap for further research. Through a comprehensive qualitative analysis of 81 publications in the corpus of literature, the research team found that blockchain technology boosted multiple accounting processes and raised the caliber of work produced by accounting experts.

A study was conducted by Pedreño et al. (2021) to review the literature on the significance of blockchain technology and its potential impact on accounting. They carried out a thorough analysis of the literature on blockchain and its importance using an exploratory study design. They investigated the idea of triple-entry accounting (TEA) and the associated accounting ledger, hoping to clarify any terminology ambiguities and make some predictions about where the technology might go. The literature review showed that blockchain can potentially transform the traditional accounting system significantly due to technological advancements and discoveries. Such a change would affect the duties of auditors and accountants.

Su et al. (2021) examined and discussed how blockchain technology affects several aspects of the accounting industry. The research used secondary sources, which required a careful analysis of previously published material. The study's results indicate that blockchain technology will be used more frequently in the accounting sector as it develops. This acceptance is expected to encourage the industry's sustained growth by creating a positive feedback loop and accelerating its overall expansion.

Adelowotan and Coetsee (2021) conducted a thorough review of relevant literature to investigate the potential effects of blockchain technology on accounting practices. Their findings showed that blockchain technology's immutability and speed improve data integrity, serving auditing and accounting purposes.

Additionally, the adoption of blockchain technology for accounting information depends on a variety of affordable validation procedures. Akinadewo (2020) studied the effects of artificial intelligence (AI) on the attitude of accountants towards accounting functions, focusing on technological advancements in Nigeria. The study surveyed 205 seasoned accountants with knowledge of the implement

In their study, Mavilia and Pisani (2019) examined the application of Blockchain technology and its potential influence on the development of developing countries. Data was gathered via surveys, interviews, and the central banks of 53 African nations. It has been shown that the application of Blockchain technology may create and implement modern financial systems and provide significant investment opportunities. Furthermore, it has been observed that Blockchain technology is still in its nascent phase of progress in the Global South, namely in Africa, and holds the potential to serve as a purposeful instrument for promoting and executing social development. In addition, Mavilia and Pisani (2019) assert that it is crucial for national governments to thoroughly assess the advantages of adopting Blockchain technology and establish laws to support its successful implementation.
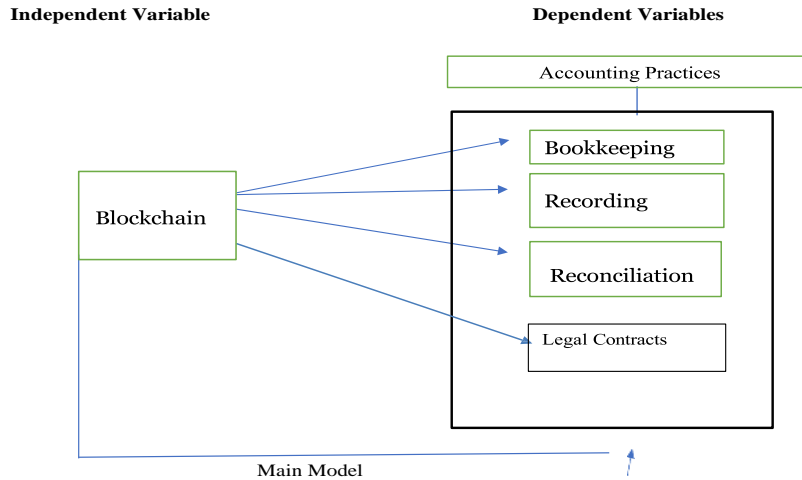
Bharti (2019) conducted an initial inquiry, gathering data from diverse sources such as journals and research papers. Upon thorough analysis of India's circumstances, it has been ascertained that the primary barriers impeding the acceptance of Blockchain technology include insufficient IT infrastructure, the absence of a legislative framework, limited interoperability, and apprehensions over privacy and data security.

Potekchina and Riumkin (2017) looked at the theoretical underpinnings of blockchain technology's application in accounting. They identified the main advantages and disadvantages of the topic during their investigation, considering its broader implications for accounting and auditing as well as its impact on credit risk management. Using a quantitative technique, the study's results showed that the potential impact of blockchain accounting on credit score measurements is constrained to the actual variance of quarterly credit ratings. Therefore, companies with more variations in their credit indicators are expected to suffer more significant effects from the technology.

METHODOLOGY

3.1   Research Design

The research methodology that was selected for this study is survey design. A set of 18 questions covering the independent and three dependent variables was created. The survey was distributed via Google Forms to professionals in the accounting field and those using accounting data. The data was analyzed using basic linear regression, and the design was used to examine how Blockchain Technology affects Accounting Practice in Nigeria. ANOVA was used to test the

Independent Variable   **Dependent Variables**

Accounting Practices

Bookkeeping

Blockchain

Recording

Reconciliation

Legal Contracts

Main Model

relationship

Figure 3.1: Conceptual model

Source: Researcher's Conceptualization (2024)

3.2   Research Design.

The chosen research methodology for this study is survey design. A survey including 18 questions encompassing the independent variable and the three dependent variables was formulated. The survey was conducted among expert accountants and individuals using the Google Form platform. The data was analyzed using simple linear regression.

3.3   Model Specification

The model description below shows the relationship between Blockchain Technology and Accounting Practices.:

$Y = f(X)$

Where; Y = Accounting Practice

X = Blockchain

$BBKP_i = \beta_0 + \beta_1 BCT_i + e_i$ ....(1)

$RCORD_i = \beta_0 + \beta_1 BCT_i + e_i$ ....(2)

$RECON_i = \beta_0 + \beta_1 BCT_i + e_i$ ....(3)

Where

$BBKP_i$ = Bookkeeping

$RCORD_i$ = Records

$RECON_i$ = Reconciliation

a0 = intercept coefficient

β_1- β_4 = Coefficient of parameter

t = Period (Time)

3.4 Technique of Data Analysis

The study utilizes the Ordinary Least Squares method for data analysis. This regression technique examines the causal relationship between variables in different time series. The reason for using this technique is that the study's data consists of a combination of longitudinal time series. Several panel data regression techniques were computed, including random effect GLS regression, fixed effect (inside) regression, and generalized least square regression. The data analysis tool to be utilized is SPSS 29, which enables the execution of specific statistical tests, including the VIF, Hausman, and Heteroskedasticity tests.

3.5 Data Analysis Technique

The data analysis involved using Descriptive Statistics and multiple regression. All hypotheses were tested at a significance level of 5%. The decision rule for the study is as follows: Reject the null hypothesis (Ho) if the observed value ($\geq$ Fe) is greater than or equal to the critical value (Fe), and do not reject Ho if the observed value (F) is less than the critical value (Fe).

RESULT AND DISCUSSION OF FINDINGS

4.1 Result and discussion of Findings

The results of the questionnaire analysis on the overall aspects of Blockchain Technology are presented in Table 1 below.

Table 1: Block Chain Technology

	Strong Agree	Agree	Disagree	Strongly Disagree	Undecided	Total
Accounting companies in Nigeria engage in a higher degree of paperless paper	46.5	20.5	11	20	1	100%
Accounting and tax organizations are currently susceptible to the utilization of artificial intelligence	82.7%	0	0	17.3%	0	100%
The field of accounting has embraced the utilization of cloud accounting	70%	0	15%	10%	5%	100%

Source: Researcher, 2024

Table 1 demonstrates that a significant proportion of the participants concurred that Blockchain Technology has enhanced the performance of an accountant. This is because 46.5% of respondents acknowledged that accounting companies in Nigeria engage in a higher degree of paperless paperwork. 10% of the individuals were indecisive. Furthermore, a significant majority (82.7%) concurred that accounting and tax organizations are currently susceptible to using artificial intelligence. In addition, the accounting field has embraced the utilization of cloud accounting.

Table 2: Impact of Blockchain Technology on bookkeeping

	Strong Agree	Agree	Disagree	Strongly Disagree	Undecided	Total
Blockchain technology has a good impact on bookkeeping	75.8	0	10%	14.2%	0	100%
Blockchain resolves clients' missing records	87.2%	0	7.8%	5%	0	100%
Blockchain aids in service delivery	81.6%	0	0	18.4%	0	100%

Source: Researcher, 2024

The next table, Table 2, displays the responses of the participants on the impact of Blockchain Technology on bookkeeping. The data indicates that a significant proportion of the participants expressed agreement with the notion that blockchain technology has a good impact on bookkeeping. Specifically, 75.8%, 87.2%, and 81.6% of the respondents agreed that blockchain resolves clients' missing records and aids in service delivery. This aligns with the findings of Ogunbajo, Akintoye, and Olayinka (2019) in their research on the relationship between blockchain technology and the generating of revenue.

Table 3: Impact of Blockchain on accounting records

	Strong Agree	Agree	Disagree	Strongly Disagree	Undecided	Total
Blockchain technology enhances the efficiency of bookkeeping	56.3%	0	20.7%	23%	0	100%
Blockchain technology enhances the precision of record-keeping	74.7%	0	10%	15.3%	0	100%

Source: Researcher, 2024

The impact of Blockchain on accounting records is illustrated in Table 3. Respondents concurred that Blockchain technology has enhanced the efficiency and precision of record keeping.

56.3% and 74.7% of the participants respectively expressed agreement with the statement mentioned above. This aligns with Bonyuet's (2020) research on the overview and influence of Blockchain on record keeping, which emphasized the necessity of assurance from clients.

Table 4: Impact of Blockchain technology on the process of reconciliation

	Strong Agree	Agree	Disagree	Strongly Disagree	Undecided	Total
Blockchain enhances service provision	66.3%	0	10.7%	23%	0	100%
Blockchain helps in risk mitigation	84.7%	0	8%	7.3%	0	100%
Blockchain helps in diminishing clients' grievance	74.7%	0	10%	15.3%	0	100%

Source: Researcher, 2024

The next table, Table 4, displays the responses of the participants on the impact of Blockchain technology on the process of reconciling balances between different parties. The table below demonstrates the beneficial impact of Blockchain on the reconciliation process. The reason for this is that most respondents concurred that Blockchain technology had enhanced service provision, mitigated risk, and diminished clients' grievances. This is consistent with the results of Oladejo and Yinus's (2020) research, which shown that the use of digital accounting practices enhanced accounting systems and led to improvements in the promptness of report generation ad the quality of financial reporting. Matthies' (2020) study further corroborated respondents' perspective, indicating that cost savings and the recouping of implementation expenses contribute to the appraisal of automation projects based on cost.

CONCLUSION AND RECOMMENDATIONS

5.1   Conclusion

The findings indicate that the adoption of Blockchain Technology and its integration into Accounting Practice in Nigeria is still in its early stages. Accounting services in Nigeria predominantly continue to depend on manual processes. Only 46.5% of respondents confirmed the gradual adoption of paperless documentation processes in enterprises. The respondents strongly understood topics of interest, such as artificial intelligence, cloud computing, and data analytics. The research concluded that there exists a substantial correlation between Blockchain Technology and Accounting practice in Nigeria and there is also a substantial correlation between Blockchain Technology and Accounting practice in Nigeria.

The study's conclusion can be summarized as follows:

i. There exists a substantial correlation between Blockchain Technology and the performance of Accounting Reconciliation in Nigeria.

iii. There is a strong correlation between Bookkeeping performance and Blockchain Technology in Nigeria.

iv. There is a substantial correlation between records keeping or management and Blockchain Technology in Nigeria.

5.2   Recommendations

The report proposes the following recommendations:

i. Additional training and awareness programs should be implemented for accounting professionals to ensure they are well informed about the latest technological advancements. This can be facilitated by the diverse professional organizations, as observed in other nations.

ii. Accounting procedures are influenced by the advancement of information and communication technology (ICT). Therefore, professional organizations should show interest in ICT and allocate more resources to it to capitalize on new technological advancements worldwide and enhance their services to clients.

iii. Professional associations, such as ICAN and others, should spearhead the creation of a conducive environment and policies to promote the adoption of Blockchain Technology by professional businesses. It is necessary to enforce a requirement that non-digitized firms or members are not eligible for certain advantages.

A Nigerian professional organization should monitor the latest advancements in accounting techniques and technology. This organization's role would be to keep professional businesses informed and up to date on current developments in the field.

The government might offer incentives to professional firms to promote the adoption of Blockchain Technology. Encouraging small enterprises to join can help them afford the cost of technology, leading to reduced operational expenses and increased professional competence within the industry.

5.3   Contribution to Knowledge

This study adds to the current body of research in Nigeria's accounting practice field. Professional firms in Nigeria will greatly benefit from understanding the significant impact of Blockchain Technology on their service delivery. The study will provide Nigerian government ministries, departments, and agencies with valuable insights into the advantages of utilizing Blockchain Technology in accounting practices.

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